

Paragraph 3

The Claims 1-16 stand rejected under 35 USC §112 first paragraph, because they contain subject matter not adequately described in the specification. Specifically, Claims 1 and 8 have been amended to recite that “said first and second inductances are magnetically coupled,” which the Office Action asserts is not adequately described in the original specification.

Applicant respectfully submits that this recitation is adequately described in the specification at page 29, lines 9-17. This paragraph teaches that while the foregoing analysis leads to the result that the mutual inductance between these inductances is virtually zero, the analysis assumes that the physical elements that form the inductances have a zero width. In reality, a very small amount of current generated by mutual induction is not canceled due to the width of the elements, and therefore just enough mutual inductance exists to still provide optimal coupling between the resonators.

Claim 15 is rejected because it has been amended to recite that the resonators coupled together in cascade are oriented such that their mutually induced currents have been canceled based on proximity and orientation. It is asserted that the original specification teaches that the mirrored resonators, not the cascaded ones, have their inductances reduced.

Applicant respectfully submits that the limitation “cascaded” merely refers to the fact that the two or more resonators are coupled to one another as illustrated in Figs. 32a and 32b such that the signal is passed between the resonators in a cascaded fashion. Each of the resonators in Figs 32a, 32b and 34a are described as having a mirrored topology in accordance with the invention and are coupled to one another in a cascaded manner. Each of the circuits of Figs. 32a, 32b and 34a, when their mirror image resonators are placed in the proper orientation and proximity to one another, produce a significantly reduced mutual inductance between the resonators as well as substantially reduced inductance values, at extended frequencies. This serves to maintain optimal coupling and a high Q

with frequencies increasing beyond about 1 GHz, the point where prior art topologies typically experience increased mutual coupling beyond that which is optimal and beyond that which can be ordinarily controlled by adjusting the physical distance between the resonators. Moreover, the structures also provide inductance values that are reduced significantly below the values attainable with the prior art topologies, which is important in maintaining a high loaded Q at the extended frequencies. Applicant respectfully submits that the description of this relationship is adequately described in the original specification, and to support the recitations in the claims.

CONCLUSION

In view of the foregoing Remarks, Applicant believes that the rejections have been traversed and that the instant case is in condition for allowance. If it should help the Examiner in the examination of this Application, the Examiner is encouraged to telephone the undersigned.

Respectfully submitted,

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